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New Claims

Branching device (1, 25) for at least one electric line, which exhibits one or more wires 1. (50), with branching contacts and with a housing (2), in which at least one electrically conducting wire terminal (11) is accommodated in a holder (10, 26), whereby contact lips (44, 46) with cutting edges (48) for cutting through the insulation (52) of the wire (50) are provided on the wire terminals (11), whereby the wire terminals (11) represent the branching contacts and whereby furthermore on a wire terminal (11) at least one connecting lug (15) and in each wire terminal (11) a through-channel (47) for the uninterrupted passage of a wire (50) are provided and whereby also at least one holding-down clamp (17, 29) for the wires (50) is provided, which holds the wires (50) in the through-channels (47) of the wire terminals (11),

characterised in that

- at least one of the contact lips (44, 46) is located diagonally to the throughchannel (47) so that it protrudes with the tip of its edge (48) into the throughchannel (47),
- at least one of the contact lips (44, 46) is flexible in a direction pointing away from the through-channel (47), and
- the holding-down clamp (17, 29) exhibits a transverse plate (18, 33), which closes off the through-channels (47) and has openings, through which the connecting lugs (15) of the wire terminals (11) protrude.
- 2. Branching device according to Claim 1, characterised in that the wire terminal (11) exhibits an approximately octagonal outline with two opposingly located, long side walls (40) and two short sides (41, 42) orthogonal to them and diagonal sides (43, 44) situated between them and at least one holder (10) with a corresponding octagonal locating space (12) for the accommodation of the wire terminal (11).

- 3. Branching device according to Claim 2, characterised in that the contact lips (44, 46) are approximately aligned as the diagonal sides (43, 44) of the wire terminal (11).
- 4. Branching device according to one of the previous claims, **characterised in that** the through-channel (47) runs in a straight line through the wire terminal (11).
- 5. Branching device according to at least one of the previous claims, **characterised in that** the wire terminals (11) are accommodated releasably in the holder (10, 26) in the housing (2).
- 6. Branching device according to at least one of the previous claims, **characterised in that** a number of wire terminals (11) corresponding to at least the number of wires (50) to be branched is provided.
- 7. Branching device according to at least one of the previous claims, **characterised in that** the contact lips (44, 46) are provided in pairs in each case on a wire terminal (11).
- 8. Branching device according to at least Claim 7, characterised in that the spacing between two paired contact lips (44, 46) is not greater than the diameter of a wire (50).
- 9. Branching device according to at least one of the Claims 7 or 8, **characterised in that** the edges (48) of paired contact lips (44, 46) facing the through-channel (47) run parallel to one another at least in sections.
- 10. Branching device according to at least one of the Claims 7 to 9, **characterised in that** two paired contact lips (44, 46) together form an entry section (49) for the wire (50), in which the spacing between the contact lips (44, 46) widens towards an entry side of the through-channel (47).
- 11. Branching device according to at least one of the previous claims, **characterised in that** a notch (14) is provided between the wire terminal (11) and its holder (10, 26).
- 12. Branching device according to at least one of the previous claims, **characterised in that** the holder (10, 26) of the wire terminals (11) is attached releasably to the housing (2).

- 13. Branching device according to at least one of the previous claims, **characterised in that** a common holder (26) for all wire terminals (11) is provided.
- 14. Branching device according to at least one of the previous claims, **characterised in that** at least one common holding-down clamp (17, 29) is provided for all wires (50).
- 15. Branching device according to at least one of the previous claims, **characterised in that** the holding-down clamp(s) (17, 29) represent a closure of the openings formed between the contact lips (44, 46).
- 16. Branching device according to at least one of the previous claims, characterised in that the holding-down clamp(s)-(17, 29)-can be latched to the holder (10, 26) of the wire terminals (11).
- 17. Branching device according to at least one of the previous claims, **characterised in that** the holding-down clamp(s) (17, 29) can be latched to the housing (2).
- 18. Branching device according to at least one of the previous claims, **characterised in that** seals (21) are provided on the housing (2) at the outlets (9) for the line.
- 19. Branching device according to at least Claim 18, **characterised in that** the seals are formed as sealing rings (21) with a side cut (22) for inserting the line.
- 20. Branching device according to at least one of the previous claims, **characterised in that** the housing (2) is assembled from a housing base section (3) and a housing upper section (4).
- 21. Branching device according to at least Claim 20, characterised in that the housing base section (3) and the housing upper section (4) can be screwed together.
- 22. Branching device according to at least one of the previous claims, **characterised in that** strain relief (36, 38) is provided on the housing (2) at the outlets (9) for the lines.